

Dr. Owen died in 1897, but Mrs. Owen continued to reside in Springfield till 1907 when she moved to the home of her daughter in Plandome, Long Island. Here she lived till her death. It was the fading away of a happy old age, and the end came on a bright morning with the room flooded with sunshine, which she always loved, and filled with iris, columbine and corn flowers. She was a woman of strong faith and she lived true to the motto of her mother's family, "Post tenebris speramus lumen de lumine," which she loved to translate, "After the darkness we hope for light from the *source* of light."

Mrs. Owen had two children, Walter L. Owen, architect, deceased, and Amelia, wife of Dr. James Sullivan, who survives her.

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CAMBRIDGE, MASSACHUSETTS.

## THE VARIATIONS OF *RANUNCULUS CYMBALARIA*.

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*Ranunculus Cymbalaria* Pursh, originally described from the saline marshes of Onondaga Lake, New York, is found in saline habitats in the northern or cooler areas of North America and Asia. In America it extends southward along the coasts to New Jersey and California and through the interior to western New York, Illinois, Texas and central Mexico; and it reappears in South America on the high Andes from Ecuador to Argentina (*R. tridentatus*, var. *minor* HBK.).

Throughout the greater portion of its range the species seems to be essentially uniform: a fleshy, strictly glabrous plant with small flowers (6-9 mm. broad) having the subequal sepals and petals 2-4 mm. long; the stamens in one or two rows and with subglobose anthers; and the head of young carpels 1.5-5 mm. high during anthesis (before the falling of the last petals and stamens). In this plant, which is the characteristic coastwise and northern form of the spe-

cies, the fruiting head is very variable in length (2.5–13 mm.) and the strongly ribbed achenes are prominently beaked and ordinarily almost stipitate.

In the more arid region of the Rocky Mountains and the Great Basin, however,—from Assiniboia, Montana and Idaho south to south-central Mexico and west into Washington, Oregon and California — the plant ordinarily has heavier foliage and larger flowers (1–2 cm. broad) and departs in a number of less conspicuous tendencies from true *R. Cymbalaria* of our more humid regions. In this large-flowered Rocky Mountain extreme the young petioles or the peduncles are often pilose; the sepals and petals are 4–9 mm. long, the stamens commonly in 3–5 rows and with slightly elongate anthers; the head of young carpels is more elongate than in *R. Cymbalaria*, 3.5–11 mm. long in anthesis, but the fruiting head is less variable in length, 7–12 mm. long; and the achenes are usually paler in color, less strongly ribbed than in *R. Cymbalaria* and with less prominent beaks and broader bases.

These characters, though clearly marking in their aggregate the large-flowered plant as different from the small-flowered type, are all variable and it does not seem possible to separate the plant specifically from *Ranunculus Cymbalaria*; but as a pronounced geographic variety it seems worthy of recognition. The plant is *R. tridentatus* HBK., var. *major* [us] HBK.<sup>1</sup> *R. tridentatus* was defined as consisting of two varieties. The first,  $\alpha$  *minor*, with “Flores erecti, magnitudine *R. arvensis*,” coming from “*prope Lactacunga Quitensium (alt. 1490 hex.), inter saxa punicea*,” as shown by several sheets from the Andes, is scarcely separable from *R. Cymbalaria* and it is so treated by R. E. Fries in his contribution *Zur Kenntniss der alpinen Flora im nördlichen Argentinien*. The second variety,  $\beta$  *major*, with “Flores erecti, magnitudine floris *R. Flammulae*” and coming from “*prope Carpio Mexicanorum, ad lacum S. Christobal, alt. 1180 hex.*,” is well represented by material from the Federal District of Mexico, Durango, San Luis Potosi and Coahuila, and is the large-flowered plant of our Rocky Mountain district. In view of the publication of *R. Cymbalaria*, var. *major* Hook. f. & Thomson<sup>2</sup> from Tibet it is undesirable to create confusion by transferring to *R. Cymbalaria* the earlier *R. tridentatus*, var. *major* HBK.; so that another name for the latter plant is proposed,

<sup>1</sup> HBK., Nov. Gen. et Sp. Pl. v, 42 (1821).

<sup>2</sup> Hook. f. & Thomson, Fl. Ind. i, 30 (1855).

Another variant of *Ranunculus Cymbalaria* which does not seem to have been recognized is the pubescent extreme of the small-flowered plant. In all accounts, *R. Cymbalaria* is described as glabrous, and in the more saline habitats it certainly is so; but in the interior regions it is quite as often pilose on the petioles or peduncles and this pubescent form is sometimes found on fresh soils near the coast.

The smallest extreme of the glabrous *Ranunculus Cymbalaria*, Hooker's var. *alpinus*,<sup>1</sup> "minor, foliis apice tridentatis, scapo unifloro" seems to be merely a dwarfed extreme such as can be found in unfavorable habitats nearly throughout the range.

The two noteworthy variants above discussed may be called

RANUNCULUS CYMBALARIA Pursh, forma **hebecaulis**, n. f., petiolis pedunculisque plus minusve pilosis; floribus 6-9 mm. latis.—In apparently less alkaline habitats than the glabrous plant. QUEBEC: moist hollows in gravelly beach, Carleton, July 21, 1904, *Collins & Fernald*. PRINCE EDWARD ISLAND: wet mossy spots with *Eriophorum angustifolium*, *Smilacina trifolia*, etc., near Cape Wolf, July 3, 1914, *Fernald & St. John*. HUDSON BAY REGION: *Burke*. ONTARIO: shore of Georgian Bay, Collingwood, August 28, 1908, *N. Tripp*. MINNESOTA: Willmar, Kandiyohi Co., July, 1892, *W. D. Frost*. NORTH DAKOTA: wet prairies, Leeds, June 6 and July 10, 1898, *J. Lunell*. KANSAS: Syracuse, Hamilton Co., alt. 3500 ft., July 13, 1893, *C. H. Thompson*, no. 108. TEXAS: along waters, Canyon, August 7, 1903, *J. Reverchon*, no. 3702. MANITOBA: Lake Winnipeg Valley, 1857, *Bourgeau*. ALBERTA: Banff, alt. 4500 ft., June 11, 1906, *Butters & Rosendahl*, no. 1339 (TYPE in Gray Herb.). IDAHO: around springs, alt. 3500 ft., Squaw Butte, Boise Co., August 18, 1911, *J. A. Clark*, no. 268.

R. CYMBALARIA, var. **saximontanus**, n. nom. *R. tridentatus* HBK., var. *major* HBK., Nov. Gen. et Sp. Pl. v. 42 (1821), not *R. Cymbalaria*, var. *major* Hook. f. & Thomson, Fl. Ind. i. 30 (1855). Very fleshy, rather large: petioles and peduncles more or less pilose: blades orbicular, ovate or oblong, 1-3.5 cm. long: peduncles 3-20 cm. long, 1-6-flowered, usually pilose: flower 1-2 cm. broad: sepals and petals 4-9 mm. long: stamens commonly in 3-5 rows; anthers ellipsoid: head of young carpels 3.5-11 mm. long in anthesis; fruiting head 7-12 mm. long: achenes mostly pale, faintly or prominently ribbed, commonly rounded at base.—Arid districts of the Rocky Mountain region from Saskatchewan to south-central Mexico, west into Washington, Oregon and California.—SASKATCHEWAN: *Bourgeau*. MONTANA: West Gallatin River, June 9, 1883, *Scribner*, no. 4a; Brick Glade, Belgrade, May 31, 1901, *E. J. Moore*. WYOMING: wet flats, Laramie, July 19, 1900, *A. Nelson*, no. 7629; wet places about the springs, Mammoth Hot Springs,

<sup>1</sup> Hook. Fl. Bor.-Am. i. 11 (1829).

July 4, 1899, *A. & E. Nelson*, no. 5663. COLORADO: moist ground near river, Fort Collins, May 15, 1894, *Crandall*, no. 22; Aboles, June, 1899, *C. F. Baker*, no. 328. NEW MEXICO: near Espanola, May 17, 1897, *Heller*, no. 3544; Kingston, May 19, 1905, *Metcalf*, no. 1601; Mangas Springs, June 11, 1903, *Metcalf*, no. 128. IDAHO: wet banks, Payette, *Macbride*, no. 869; loamy slopes, Boulder Creek, July 31, 1910, *Macbride*, no. 503; moist banks, New Plymouth, June 15, 1910, *Macbride*, no. 246. UTAH: Wahsatch Mts., May, 1869, *Watson*, no. 20; Modena, June 2, 1902, *Goodding*, no. 1011; Salt Lake City, June, 1904, *A. O. Garrett*. NEVADA: Carson City, *A. Gray*; Soda Lake, August, 1867, *Watson*, no. 20. ARIZONA: river bottom, Boyles, *Goodding*, no. 516. COAHUILA: Saltillo, May, 1898, *Palmer*, no. 178. SAN LUIS POTOSI: region of San Luis Potosi, 1878, *Parry & Palmer*, no. 3. DURANGO: Durango, 1896, *Palmer*, no. 96. MEXICO: near Mexico, May 15, 1865-66, *Bourgeau*, no. 2. CALIFORNIA: Bear Valley, San Bernardino Mts., June, 1886, *Parish*, no. 1788; Silver Canyon east of Laws, May 9, 1906, *Heller*, no. 8213. OREGON: near Mitchell, May 15, 1885, *Howell*, no. 322. WASHINGTON: near Sprague, Lincoln Co., June 3, 1893, *Sandberg & Leiberg*, no. 135; Rattlesnake Mts., June 15, 1901, *Cotton*, no. 414.

GRAY HERBARIUM.

## NEW ENGLAND DISTRIBUTION OF *ILEX OPACA* AND *ILEX GLABRA*.

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IN travelling over southeastern Massachusetts by winter and summer, I have been much interested in the detailed distribution of the two evergreen *Ilices*, *Ilex opaca* and *I. glabra*, which somehow seem quite exotic among our other New England plants. These two species, along with *Chamaedaphne*, the *Kalmias*, and the isolated *Rhododendron maximum*, are our only conspicuous broad-leaved evergreens.

According to Robinson's Flora of Essex County there were a few scattered trees of *Ilex opaca* on Cape Ann at Rockport, but these have been extinct since 1880, according to J. H. Sears, RHODORA x. 43. This is an isolated station, however, for the general range of the species is from Quincy, Holbrook, Hingham and Cohasset south to